PATENT ABSTRACTS OF JAPAN

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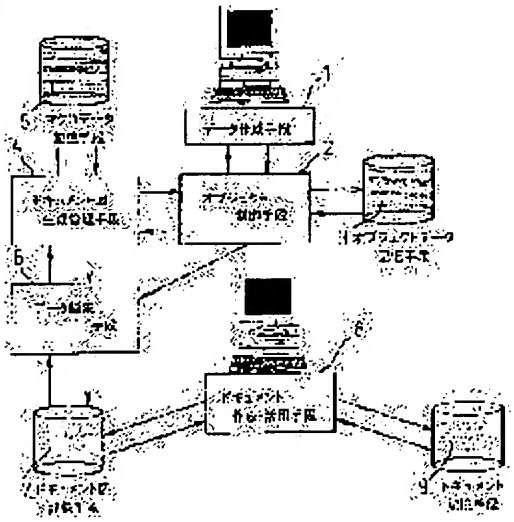
(54) AUTOMATIC PROCESSOR FOR LATEST DATA

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a latest data automatic processor which automatically recognize updating of an object and always reflects the latest object data on a document.
SOLUTION: In order to use an object that is produced by a data production means 1 such as a three-dimensional CAD as a document diagram, data conversion procedures and operations are accumulated by a document diagram production management means 4. When the object is corrected by a data production means 1, an object control means 2 detects the correction of the object and automatically executes again those accumulated data change procedures and operations. Thus, all produced document diagrams can be updated.



LEGAL STATUS

[Date of request for examination]

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[Date of final disposal for application]

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CLAIMS

[Claim(s)]
[Claim 1] The object control means which controls storage, transmission, and reception for objects created by the data origination means, such as a drawing and model data, An object data storage means to memorize said object through said object control means, A data-editing means to change the preservation format of an object which consists of various image transformation applications or an image data acquisition tool, The document Fig. generation management tool which stores the library-name of a document Fig. which is an object after the preservation format conversion by the registration hysteresis and said data-editing means of an object of said object control means, The newest data automatic processor characterized by having the data storage which memorizes the object after preservation format conversion.
[Claim 2] The newest data automatic processor according to claim 1 characterized by including an updating document Fig. automatic creation means by which it was made to generate a document automatically to updating and coincidence of an object when an object control means detects renewal of the object created by said data origination means.
[Claim 3] By registering with said document Fig. generation management tool with said data-editing means by using the reference model name in the case of carrying out preservation format conversion, a refix date, creation or reference, a work file name, and the data name after conversion as maintenance data When the same object is corrected and updated by said data origination means after that, The newest data automatic processor according to claim 1 characterized by including the updating document Fig. automatic creation means updates the data after all conversion automatically and it enabled it to store in said data storage with reference to the conversion and the data name which were registered into the document Fig. generation management tool.

[Translation done.]

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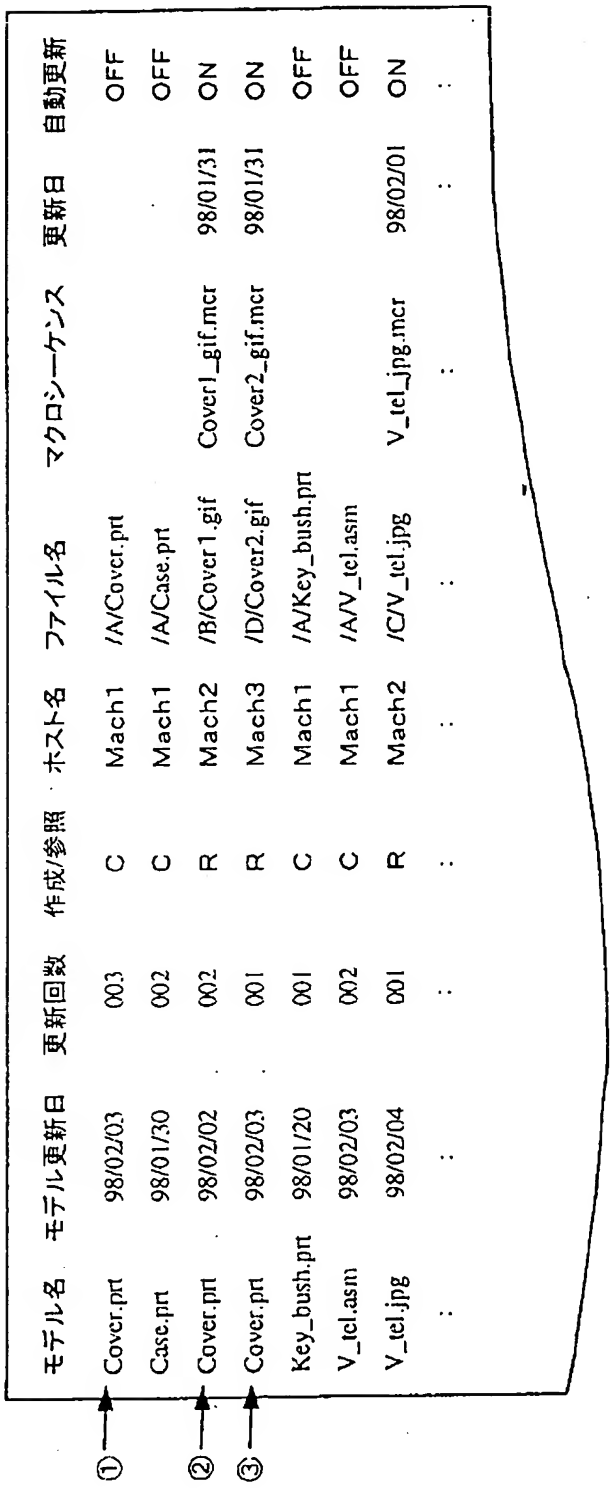
DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the newest data automatic processor which always uses the newest object data for your making it automatically reflected in the document created with various document tools, when objects created by data origination means, such as CAD, such as a drawing and a three-dimension model, are utilized for two or more documents.
[0002]
[Description of the Prior Art] Conventionally, what was indicated by JP,6-35981,A and JP,8-272833,A as an approach in which the renewal of data of the newest data automatic processor is made to reflect is known.
[0003] These equipment and means create the data in the format of it being adapted for a document or not depending on a tool for the updated object itself, and realize them by re-covering the link (dependency) of this data.
[0004]
[Problem(s) to be Solved by the Invention] However, it sets for equipment and the means of the above-mentioned former. Since updating is reflected in the object saved in the form of specification only to the document and object which stretched the link, Only to the document created with the specific tool, the renewal of automatic of a document is possible and it is related with other documents. Since the manual updating activity was always required, when it had always become a document reflecting the newest object, it did not restrict, and had the problem that an updating activity (maintenance) also took time amount very much.
[0005] If the above-mentioned conventional problem is solved and an object is updated, this invention will recognize updating automatically and will aim at offering the newest data automatic processor which always reflects the newest object data in a document.
[0006]
[Means for Solving the Problem] In order to solve the above-mentioned problem and to attain the purpose, by the object control means which controls the object created by data origination means, such as CAD, this invention will acquire an object from an object data storage means, if renewal of an object is detected, and creates a document Fig. in the procedure registered into the object generation management tool using a data-editing means.
[0007] The newest data automatic processor which recognizes updating to data (updating) preservation and coincidence of an object, and always reflects the newest object data in them by this at a document is obtained.
[0008]
[Embodiment of the Invention] The object control means which controls storage of objects, such as a drawing by which invention of this invention according to claim 1 was created with data origination means, such as CAD, and model data, transmission, and reception, An object data storage means to memorize said object through an object control means, A data-editing (for example, conversion to image data stuck on document etc. from three-dimension model data etc.) means to change preservation format of an object which consists of various image transformation applications or an image data acquisition tool, It consists of a document Fig. generation management tool which stores

the library-name of a document Fig. which is an object after the preservation format conversion by the registration hysteresis and the data-editing means of an object of an object control means, and data storage which memorizes the document after preservation format conversion.
[0009] According to this invention, the document Fig. stuck on a document etc. has the operation of the ability to make the newest object always reflect.
[0010] Moreover, when an object control means detects renewal of the object created by the data origination means, invention according to claim 2 is an updating document Fig. automatic creation means by which it was made to generate a document automatically, a reorganization collection, it carries out, and it only carries out data storage of the object which becomes the origin of a document Fig. to updating and coincidence of an object, updates a document Fig. automatically, and has the operation of the ability to make the newest object always reflect.
[0011] Moreover, the reference model name in the case of carrying out preservation format conversion of the invention according to claim 3 with a data-editing means, By registering with the document Fig. generation management tool by using a refix date, creation or reference, a work file name, and the data name after conversion as maintenance data When the same object is corrected and updated by the data origination means after that, In order to update the data after all conversion automatically, to enable it to store in data storage with reference to the conversion and the data name which were registered into the document Fig. generation management tool and to follow the same procedure as conversion of front data, In order to acquire the same angle type, the same scale, and drawing of the same magnitude automatically to an object, it has an operation that it is not necessary to change locations, such as a layout of the document itself, and a leader line.
[0012] Hereafter, the gestalt of operation of this invention is explained using drawing 1 - drawing 3 .
[0013] Drawing 1 is the block diagram showing the configuration of the newest data automatic processor in the gestalt of operation of this invention. In drawing 1 , 1 is a data origination means and this consists of two-dimensional and three dimensional CAD which create a design model etc. (it is henceforth called an object), CG application, etc. 2 is an object control means and this makes the storage management of an object and the decision of new and updating which were created with the data origination means 1. 3 is an object data storage means and this stores object data. 4 is a document Fig. generation management tool, and this manages the procedure which changes object data into a document. 5 is a macro data storage means and this stores the file which described the real procedure of conversion procedure. 6 is a data-editing means and this consists of various tools which change an object into the data for documents. 7 is a document Fig. storage means and this stores the translation data changed from the object with the data-editing means 6. 8 is document creation / activity means, this consists of various DTP tools, WWW (World Wide Web), etc., and a document is created or it is displayed. 9 is a document storage means and this stores the parent data of a document (translation data is called).
[0014] The image Fig. in the angle type which the whole understands well after creating a design model by three dimensional CAD is explained [processor / which was constituted as mentioned above / newest data automatic] using the processing flow Fig. of drawing 2 about a series of actuation of the document registration which carries the Internet and intranet to a through browser, and maintenance.
[0015] First, the three-dimension design model which is object data is created with the data origination means 1 at step a.
[0016] Registration of data is stored in the object data storage means 3 through the object control means 2 after creating object data at step b. It is registered into the maintenance data of the document Fig. generation management tool [like] 4 while storing (Table 1) like the line of **, using the term of generation/reference as C (generation).
[0017]
[Table 1]



モデル名	モデル更新日	更新回数	作成/参照	ホスト名	ファイル名	マクロシーケンス	更新日	自動更新
Cover.prt	98/02/03	003	C	Mach1	/A/Cover.prt			OFF
Case.prt	98/01/30	002	C	Mach1	/A/Case.prt			OFF
Cover.prt	98/02/02	002	R	Mach2	/B/Cover1.gif	Cover1_gif.mcr	98/01/31	ON
Cover.prt	98/02/03	001	R	Mach3	/D/Cover2.gif	Cover2_gif.mcr	98/01/31	ON
Key_bush.prt	98/01/20	001	C	Mach1	/A/Key_bush.prt			OFF
V_tel.asm	98/02/03	002	C	Mach1	/A/V_tel.asm			OFF
V_tel.jpg	98/02/04	001	R	Mach2	/C/V_tel.jpg	V_tel_jpg.mcr	98/02/01	ON

① ② ③

[0018] Next, in step c, it distinguishes whether the object data generated at step a are generated newly, or the existing object data are corrected and updated by the object control means 2.
[0019] In step c, if object data are judged to be new data, when a user makes first declaration of initiation of the macro creation for document Fig. creation which collects actuation hysteresis to the document Fig. generation management tool 4 in creation of a document Fig., in step d, the document Fig. generation management tool 4 will start the total of user actuation.
[0020] Next, in step e, actually display object data, it is made to display by the scale of arbitration, and the angle type of arbitration, and a document Fig. is created using the data-editing means 6.
[0021] In step f, after ending creation of a document Fig., a user makes declaration of termination of the macro creation for document Fig. creation to the document Fig. generation management tool 4.
[0022] Next, in step g, if termination declaration of the macro creation for document Fig. creation is

made, the document Fig. management window 10 as shown in drawing 3 to which a registration setup of a document Fig. is urged with the document Fig. generation management tool 4 will be displayed. The propriety of a library-name, a registration location (a host name and directory), and renewal of automatic is set up by the user with drawing 3 .

[0023] In step h, by setting up and performing the contents of a window of drawing 3 , a document Fig. is outputted from the data-editing means 6 in predetermined preservation format, and it stores in the document Fig. storage means 7.

[0024] After document Fig. preservation is normally completed at step h, in step i, the document Fig. generation management tool 4 rewrites the maintenance data of the document Fig. generation management tool 4 as shown in (Table 1) to coincidence, and stores them in the macro data storage means 5 at it with the work-habits macro data created at step e.

[0025] Next, in step j, in order to display on a browser, as the document Fig. data saved for the after [conversion] document Fig. storage means 7 in the document are referred to using document creation / activity means 8, a document (HTML document) is created.

[0026] The document finally created at step j is saved for the document storage means 9 at step k.

[0027] Creation of a document is completed by old flow.

[0028] Next, at step l, for the reasons of a design change etc., a three-dimension design model is corrected with the data origination means 1, and the object control means 2 is saved to through and the object data storage means 3 to object data.

[0029] Next, in step c, that by which the model registered by the object control means 2 was newly created distinguishes like the above-mentioned in what was corrected and updated.

[0030] Since it is correction this time, in step m, by using a model name as a key, the term of creation/reference is R and the line from which the term of renewal of automatic serves as ON is searched with the document Fig. generation management tool 4 about the maintenance data of the document Fig. management tool 4 as shown in (Table 1). When a model called Cover is corrected, the line of ** is found first.

[0031] Next, in step n, the macro sequence described by the term of a macro sequence is taken out from the macro data storage means 5, and a macro sequence is performed in the data-editing means 6.

[0032] By performing a macro sequence at step n, where a three-dimension design model is updated, a document Fig. is generated automatically at step o with the same procedure as step e, and a macro sequence is ended at step p.

[0033] After document Fig. automatic generation is completed, in step q, overwrite registration is carried out after changing a document Fig. like step h at the document Fig. storage means 7. In addition to processing of step h, at step q, the count of updating of the maintenance data of the document Fig. generation management tool 4 and the term of a refix date are rewritten.

[0034] It repeats until it searches all the model names that furthermore correspond the activity from step m to step q in the maintenance data of the document Fig. generation management tool 4 (in Table 1, the macro sequence of the line of ** is also performed further).

[0035] According to the gestalt of this operation, it can perform automatically making the newest model data reflect only by correcting and saving the model created with data origination means, such as CAD, in a data origination means in all the document Figs. created for using for documents, such as a homepage, etc. as mentioned above.

[0036]

[Effect of the Invention] As explained above, this invention manages the conversion procedure at the time of using the object created with data origination means, such as CAD, as a document Fig., and a conversion place. The initiation timing of automatic generation by considering as the correction and renewal of an object a document Fig. In case it not only can always consider as the condition of the newest object, but it can set constant the required angle type of a document Fig., the magnitude of an object, etc. and a document Fig. is re-created on the occasion of updating, the accommodation time amount to generate can be saved.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention] This invention relates to the newest data automatic processor which always uses the newest object data for your making it automatically reflected in the document created with various document tools, when objects created by data origination means, such as CAD, such as a drawing and a three-dimension model, are utilized for two or more documents.

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PRIOR ART

[Description of the Prior Art] Conventionally, what was indicated by JP,6-35981,A and JP,8-272833,A as an approach in which the renewal of data of the newest data automatic processor is made to reflect is known.
[0003] These equipment and means create the data in the format of it being adapted for a document or not depending on a tool for the updated object itself, and realize them by re-covering the link (dependency) of this data.
[0004]

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EFFECT OF THE INVENTION

[Effect of the Invention] As explained above, this invention manages the conversion procedure at the time of using the object created with data origination means, such as CAD, as a document Fig., and a conversion place. The initiation timing of automatic generation by considering as the correction and renewal of an object a document Fig. In case it not only can always consider as the condition of the newest object, but it can set constant the required angle type of a document Fig., the magnitude of an object, etc. and a document Fig. is re-created on the occasion of updating, the accommodation time amount to generate can be saved.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] However, it sets for equipment and the means of the above-mentioned former. Since updating is reflected in the object saved in the form of specification only to the document and object which stretched the link, Only to the document created with the specific tool, the renewal of automatic of a document is possible and it is related with other documents. Since the manual updating activity was always required, when it had always become a document reflecting the newest object, it did not restrict, and had the problem that an updating activity (maintenance) also took time amount very much.
[0005] If the above-mentioned conventional problem is solved and an object is updated, this invention will recognize updating automatically and will aim at offering the newest data automatic processor which always reflects the newest object data in a document.

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MEANS

[Means for Solving the Problem] In order to solve the above-mentioned problem and to attain the purpose, by the object control means which controls the object created by data origination means, such as CAD, this invention will acquire an object from an object data storage means, if renewal of an object is detected, and creates a document Fig. in the procedure registered into the object generation management tool using a data-editing means.
[0007] The newest data automatic processor which recognizes updating to data (updating) preservation and coincidence of an object, and always reflects the newest object data in them by this at a document is obtained.
[0008]
[Embodiment of the Invention] The object control means which controls storage of objects, such as a drawing by which invention of this invention according to claim 1 was created with data origination means, such as CAD, and model data, transmission, and reception, An object data storage means to memorize said object through an object control means, A data-editing (for example, conversion to image data stuck on document etc. from three-dimension model data etc.) means to change preservation format of an object which consists of various image transformation applications or an image data acquisition tool, It consists of a document Fig. generation management tool which stores the library-name of a document Fig. which is an object after the preservation format conversion by the registration hysteresis and the data-editing means of an object of an object control means, and data storage which memorizes the document after preservation format conversion.
[0009] According to this invention, the document Fig. stuck on a document etc. has the operation of the ability to make the newest object always reflect.
[0010] Moreover, when an object control means detects renewal of the object created by the data origination means, invention according to claim 2 is an updating document Fig. automatic creation means by which it was made to generate a document automatically, a reorganization collection, it carries out, and it only carries out data storage of the object which becomes the origin of a document Fig. to updating and coincidence of an object, updates a document Fig. automatically, and has the operation of the ability to make the newest object always reflect.
[0011] Moreover, the reference model name in the case of carrying out preservation format conversion of the invention according to claim 3 with a data-editing means, By registering with the document Fig. generation management tool by using a refix date, creation or reference, a work file name, and the data name after conversion as maintenance data When the same object is corrected and updated by the data origination means after that, In order to update the data after all conversion automatically, to enable it to store in data storage with reference to the conversion and the data name which were registered into the document Fig. generation management tool and to follow the same procedure as conversion of front data, In order to acquire the same angle type, the same scale, and drawing of the same magnitude automatically to an object, it has an operation that it is not necessary to change locations, such as a layout of the document itself, and a leader line.
[0012] Hereafter, the gestalt of operation of this invention is explained using drawing 1 - drawing 3 .
[0013] Drawing 1 is the block diagram showing the configuration of the newest data automatic processor in the gestalt of operation of this invention. In drawing 1 , 1 is a data origination means and this consists of two-dimensional and three dimensional CAD which create a design model etc.

(it is henceforth called an object), CG application, etc. 2 is an object control means and this makes the storage management of an object and the decision of new and updating which were created with the data origination means 1. 3 is an object data storage means and this stores object data. 4 is a document Fig. generation management tool, and this manages the procedure which changes object data into a document. 5 is a macro data storage means and this stores the file which described the real procedure of conversion procedure. 6 is a data-editing means and this consists of various tools which change an object into the data for documents. 7 is a document Fig. storage means and this stores the translation data changed from the object with the data-editing means 6. 8 is document creation / activity means, this consists of various DTP tools, WWW (World Wide Web), etc., and a document is created or it is displayed. 9 is a document storage means and this stores the parent data of a document (translation data is called).

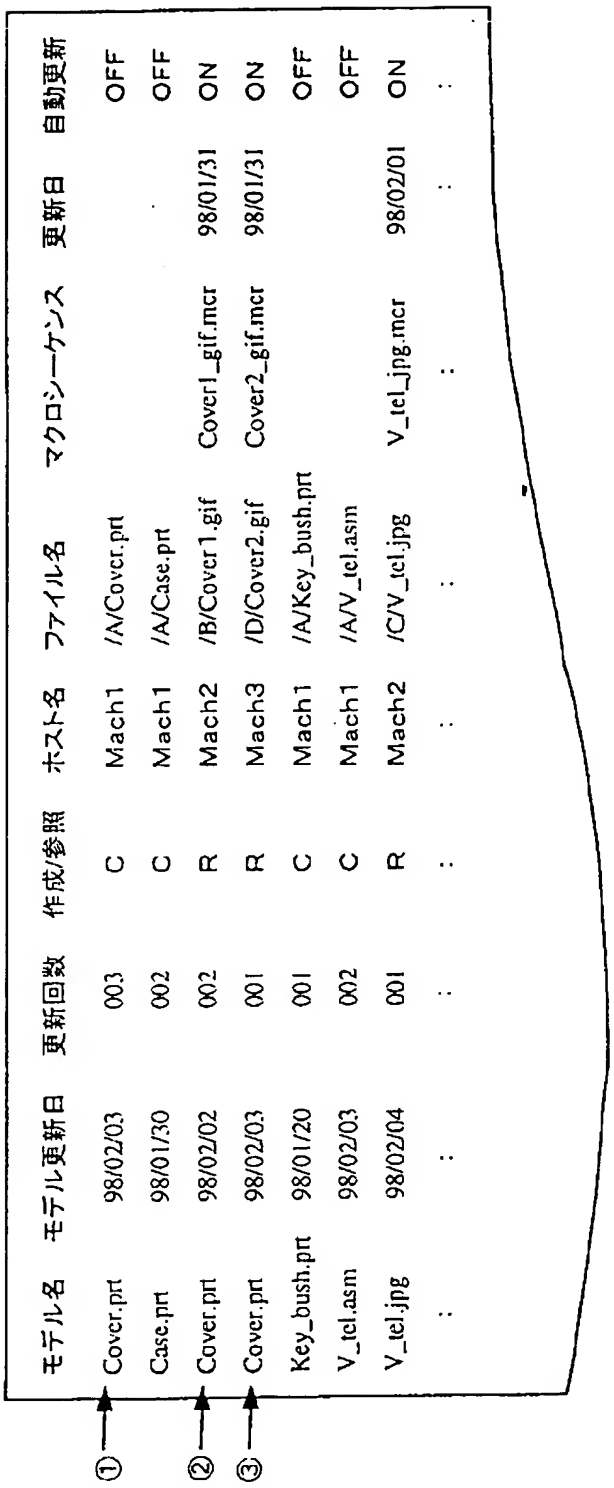
[0014] The image Fig. in the angle type which the whole understands well after creating a design model by three dimensional CAD is explained [processor / which was constituted as mentioned above / newest data automatic] using the processing flow Fig. of drawing 2 about a series of actuation of the document registration which carries the Internet and intranet to a through browser, and maintenance.

[0015] First, the three-dimension design model which is object data is created with the data origination means 1 at step a.

[0016] Registration of data is stored in the object data storage means 3 through the object control means 2 after creating object data at step b. It is registered into the maintenance data of the document Fig. generation management tool [like] 4 while storing (Table 1) like the line of **, using the term of generation/reference as C (generation).

[0017]

[Table 1]



モデル名	モデル更新日	更新回数	作成/参照	ホスト名	ファイル名	マクロシーケンス	更新日	自動更新
Cover.prt	98/02/03	003	C	Mach1	/A/Cover.prt			OFF
Case.prt	98/01/30	002	C	Mach1	/A/Case.prt			OFF
Cover.prt	98/02/02	002	R	Mach2	/B/Cover1.gif	Cover1_gif.mcr	98/01/31	ON
Cover.prt	98/02/03	001	R	Mach3	/D/Cover2.gif	Cover2_gif.mcr	98/01/31	ON
Key_bush.prt	98/01/20	001	C	Mach1	/A/Key_bush.prt			OFF
V_tel.asm	98/02/03	002	C	Mach1	/A/V_tel.asm			OFF
V_tel.jpg	98/02/04	001	R	Mach2	/C/V_tel.jpg	V_tel_jpg.mcr	98/02/01	ON
:	:	:	:	:	:	:	:	:

① ② ③

[0018] Next, in step c, it distinguishes whether the object data generated at step a are generated newly, or the existing object data are corrected and updated by the object control means 2.
[0019] In step c, if object data are judged to be new data, when a user makes first declaration of initiation of the macro creation for document Fig. creation which collects actuation hysteresis to the document Fig. generation management tool 4 in creation of a document Fig., in step d, the document Fig. generation management tool 4 will start the total of user actuation.
[0020] Next, in step e, actually display object data, it is made to display by the scale of arbitration, and the angle type of arbitration, and a document Fig. is created using the data-editing means 6.
[0021] In step f, after ending creation of a document Fig., a user makes declaration of termination of the macro creation for document Fig. creation to the document Fig. generation management tool 4.
[0022] Next, in step g, if termination declaration of the macro creation for document Fig. creation is

made, the document Fig. management window 10 as shown in drawing 3 to which a registration setup of a document Fig. is urged with the document Fig. generation management tool 4 will be displayed. The propriety of a library-name, a registration location (a host name and directory), and renewal of automatic is set up by the user with drawing 3 .

[0023] In step h, by setting up and performing the contents of a window of drawing 3 , a document Fig. is outputted from the data-editing means 6 in predetermined preservation format, and it stores in the document Fig. storage means 7.

[0024] After document Fig. preservation is normally completed at step h, in step i, the document Fig. generation management tool 4 rewrites the maintenance data of the document Fig. generation management tool 4 as shown in (Table 1) to coincidence, and stores them in the macro data storage means 5 at it with the work-habits macro data created at step e.

[0025] Next, in step j, in order to display on a browser, as the document Fig. data saved for the after [conversion] document Fig. storage means 7 in the document are referred to using document creation / activity means 8, a document (HTML document) is created.

[0026] The document finally created at step j is saved for the document storage means 9 at step k.

[0027] Creation of a document is completed by old flow.

[0028] Next, at step l, for the reasons of a design change etc., a three-dimension design model is corrected with the data origination means 1, and the object control means 2 is saved to through and the object data storage means 3 to object data.

[0029] Next, in step c, that by which the model registered by the object control means 2 was newly created distinguishes like the above-mentioned in what was corrected and updated.

[0030] Since it is correction this time, in step m, by using a model name as a key, the term of creation/reference is R and the line from which the term of renewal of automatic serves as ON is searched with the document Fig. generation management tool 4 about the maintenance data of the document Fig. management tool 4 as shown in (Table 1). When a model called Cover is corrected, the line of ** is found first.

[0031] Next, in step n, the macro sequence described by the term of a macro sequence is taken out from the macro data storage means 5, and a macro sequence is performed in the data-editing means 6.

[0032] By performing a macro sequence at step n, where a three-dimension design model is updated, a document Fig. is generated automatically at step o with the same procedure as step e, and a macro sequence is ended at step p.

[0033] After document Fig. automatic generation is completed, in step q, overwrite registration is carried out after changing a document Fig. like step h at the document Fig. storage means 7. In addition to processing of step h, at step q, the count of updating of the maintenance data of the document Fig. generation management tool 4 and the term of a refix date are rewritten.

[0034] It repeats until it searches all the model names that furthermore correspond the activity from step m to step q in the maintenance data of the document Fig. generation management tool 4 (in Table 1, the macro sequence of the line of ** is also performed further).

[0035] According to the gestalt of this operation, it can perform automatically making the newest model data reflect only by correcting and saving the model created with data origination means, such as CAD, in a data origination means in all the document Figs. created for using for documents, such as a homepage, etc. as mentioned above.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] The block diagram showing the configuration of the newest data automatic processor in the gestalt of operation of this invention
[Drawing 2] The processing flow Fig. in the gestalt of operation of this invention
[Drawing 3] The document Fig. management window in the gestalt of operation of this invention
[Description of Notations]
1 Data Origination Means
2 Object Control Means
3 Object Data Storage Means
4 Document Fig. Generation Management Tool
5 Macro Data Storage Means
6 Data-Editing Means
7 Document Fig. Storage Means
8 Document Creation / Activity Means
9 Document Storage Means
10 Document Fig. Management Window

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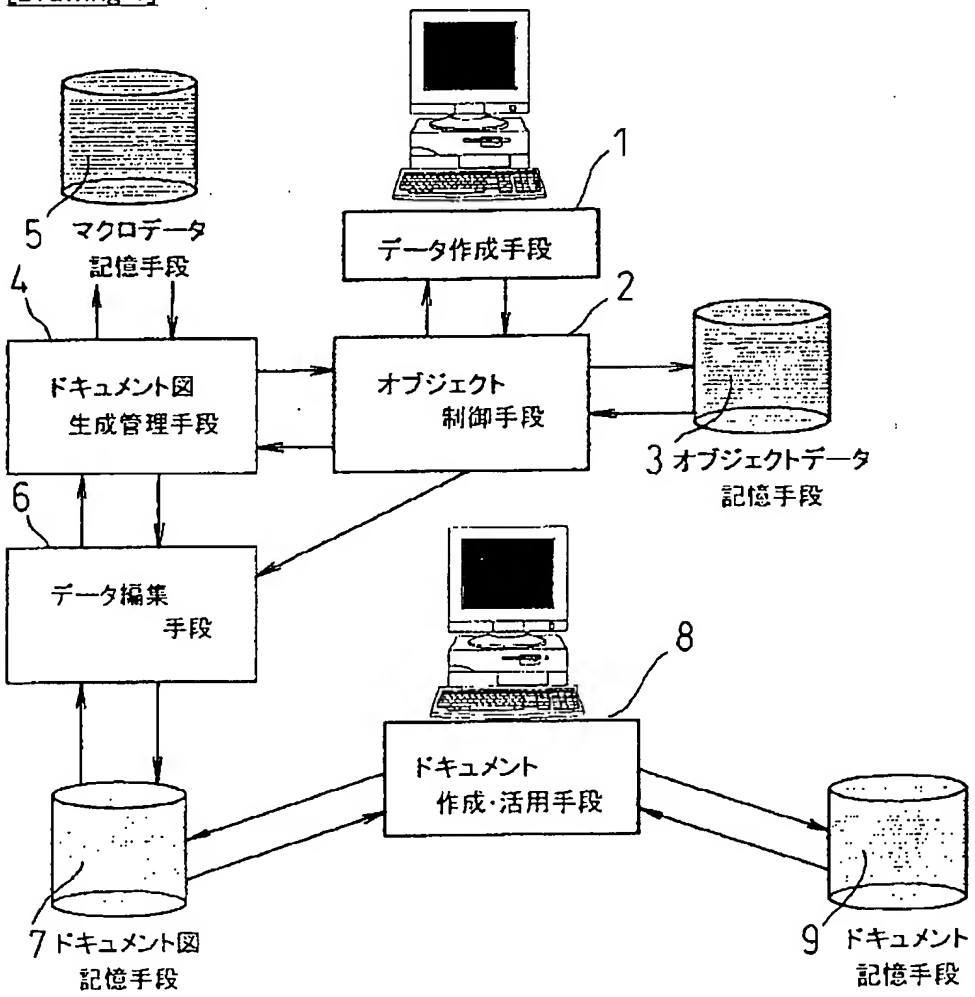
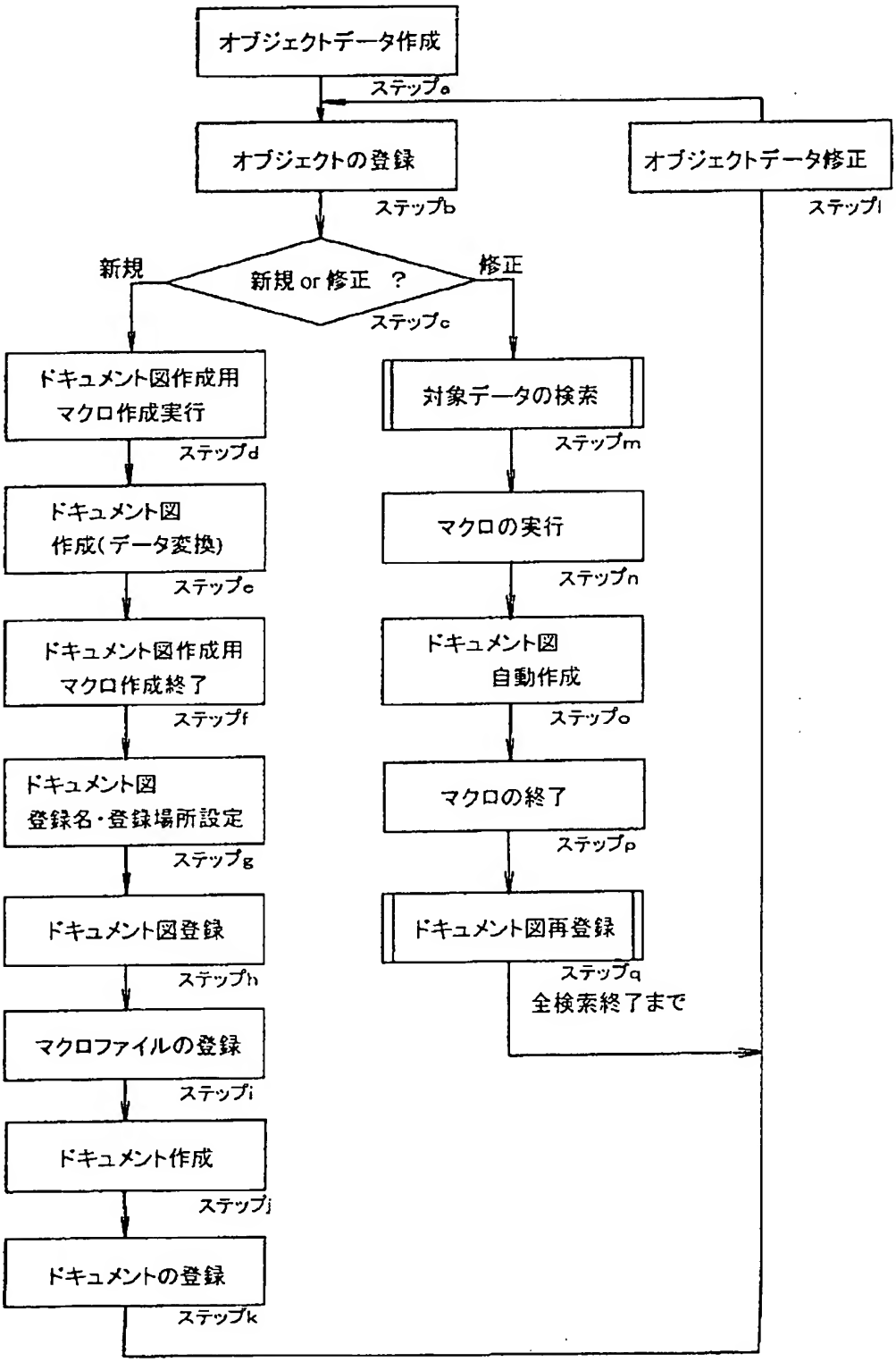
DRAWINGS

[Drawing 1]



[Drawing 2]


オブジェクトデータ作成
ステップa
オブジェクトの登録
ステップb
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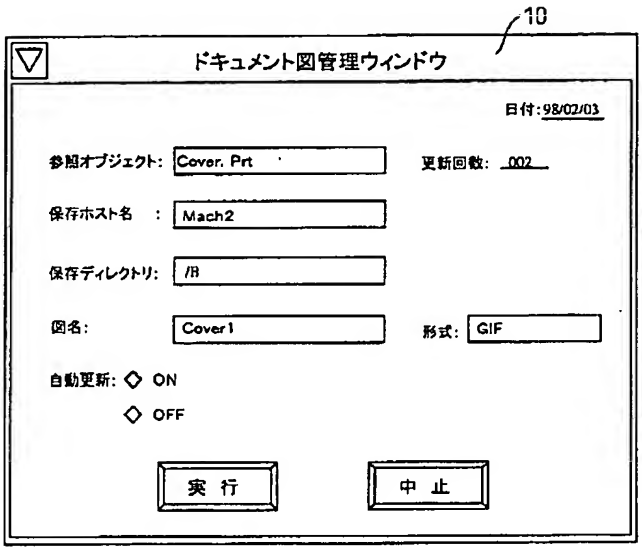
ステップi
ドキュメント作成
ステップj
ドキュメントの登録
ステップk

[Drawing 3]



[Translation done.]

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